## Conclusions and Recommendations

### Hydrogeologic Information

Protection of ground water requires a sound and appropriately designed hydrogeologic information base to determine on a continuing basis what ground water contamination problems may exist. Data are also needed to predict future threats.

The committee encourages state and local programs to obtain the necessary hydrogeological information for each region. The program should be long term to obtain physical and chemical information aimed at developing a quantitative understanding of the occurrence and the quality and dynamics of the resource, together with the types, extent, and sources of potential contaminants. The data should be collected and formatted to assist in the area's ground water management program so that the program's effectiveness over time can be evaluated. The USGS should expand its technical assistance and information-gathering programs to assist states in this effort. State and local organizations should become familiar with and incorporate appropriate data available from federal systems, such as those of the USGS and the Department of Agriculture, relating to hydrology, soils, and chemical use.

### Types of Data and Data Management Systems

Recent advances in electronic data storage and processing technology have enabled collection and management of large amounts of data. This has often encouraged data gathering without adequate assessment of its usefulness and without conversion of the data into readily usable formats for analyses, policy-making, and management.

The committee recommends that both state and federal information programs be carefully designed to emphasize collection and storage of data that can be produced in a format that facilitates analysis of problems and long-term trends. The programs should be reviewed and revised regularly to improve the efficiency and selectivity of data gathering. The information management system should be flexible and appropriate to the types and quantities of data anticipated. Data management systems should be easy to access and use but should also be secure from unauthorized manipulation or changes. Florida is making a promising attempt to develop and implement a ground water quality information system.

Permanent inventory systems for potential contaminants or sources are helpful in preventing ground water and surface water contamination. One